

Aug. 10, 1954

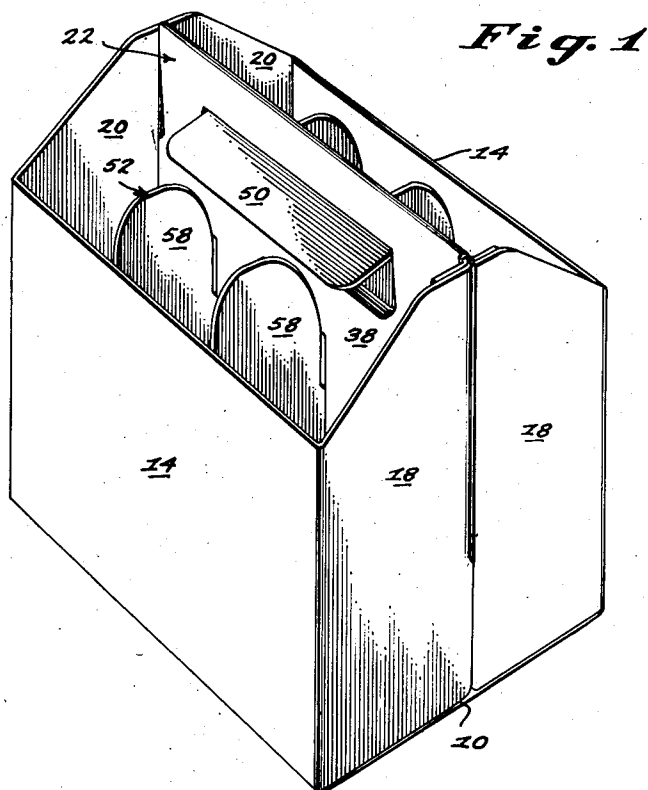
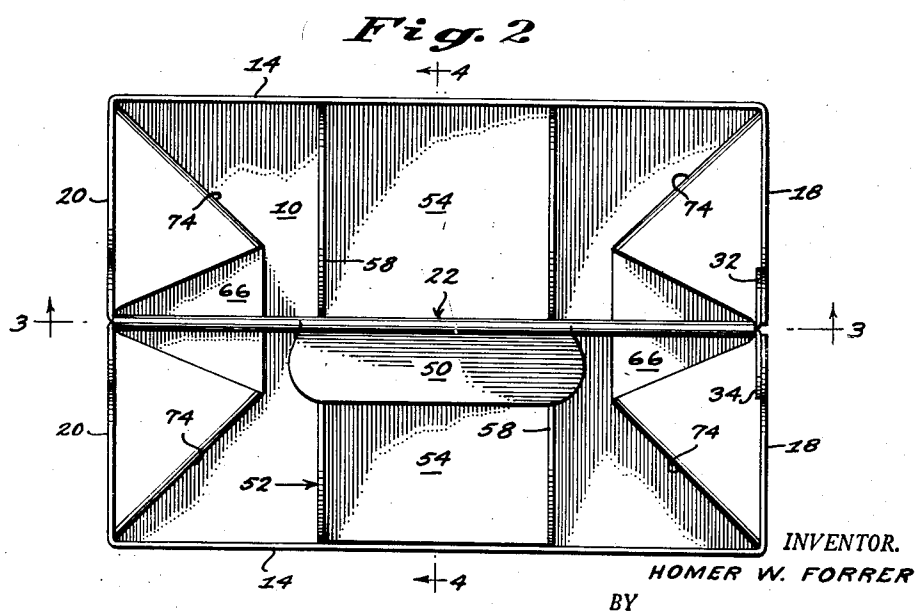
H. W. FORRER

2,686,003

BOTTLE CARRIER

Filed Sept. 15, 1950

4 Sheets-Sheet 1



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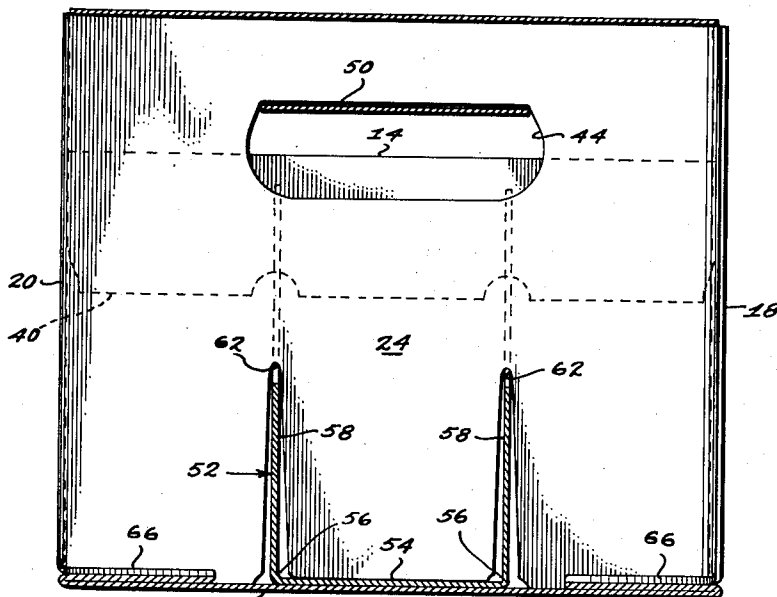


Fig. 3

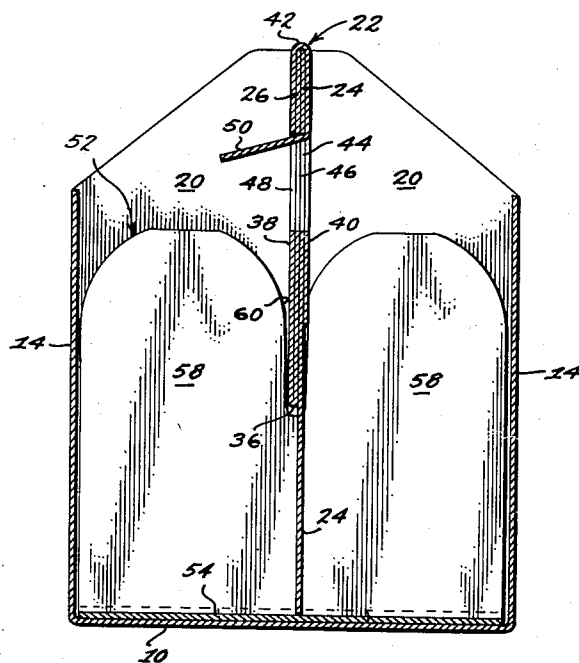


Fig. 4

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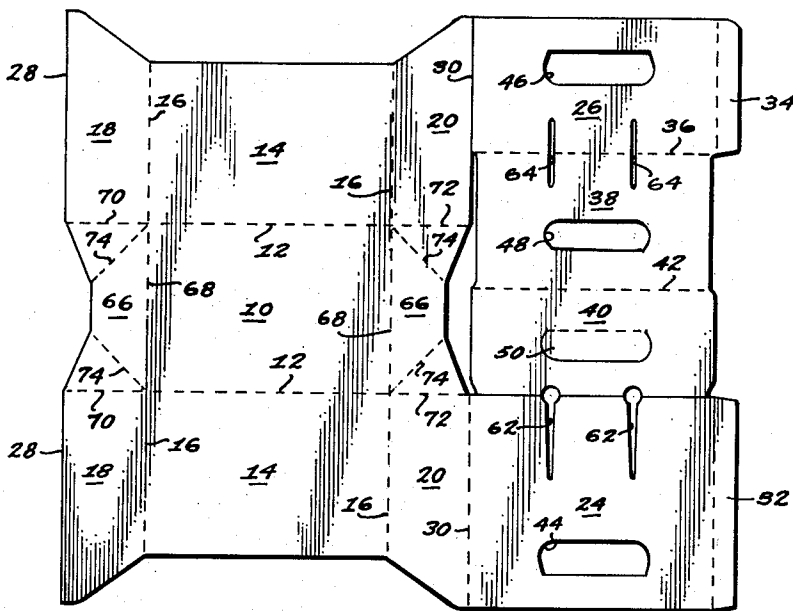


Fig. 5

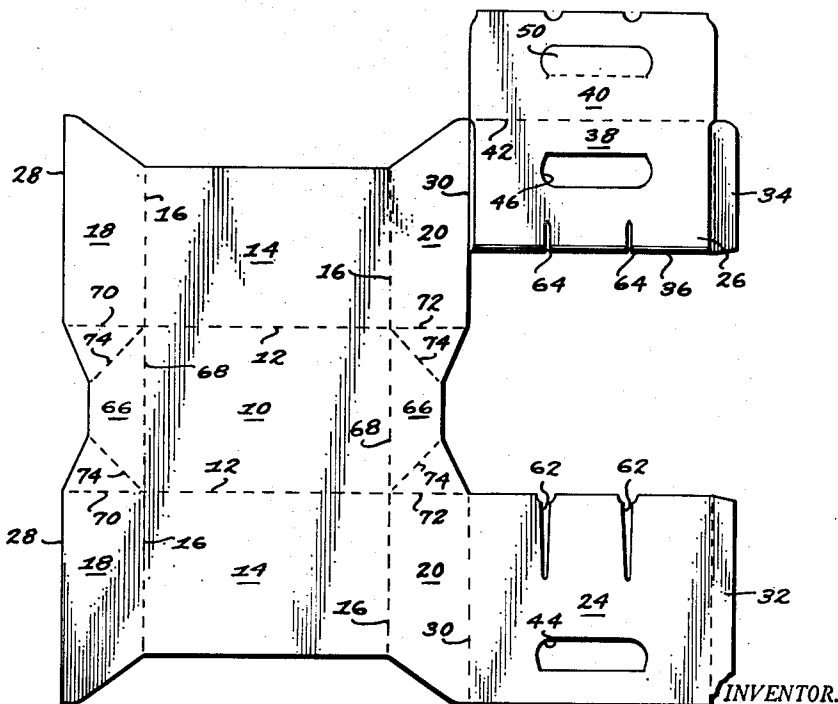


Fig. 6

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Fig. 7

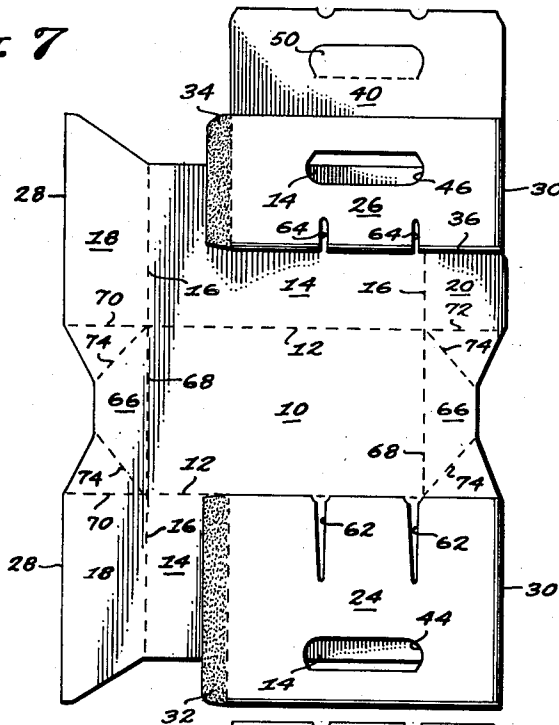


Fig. 8

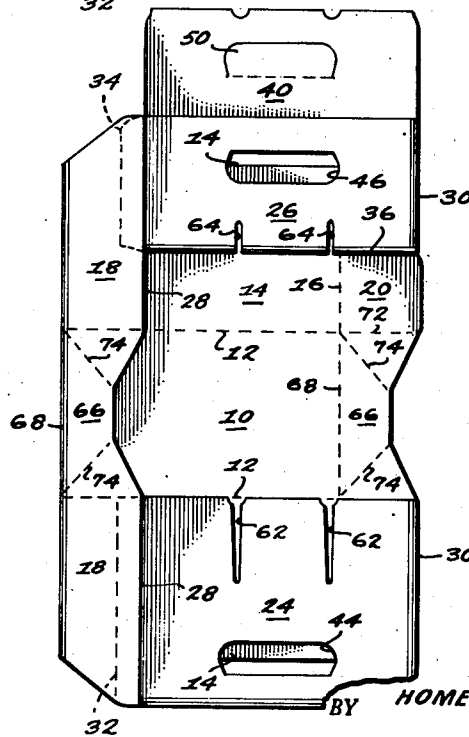
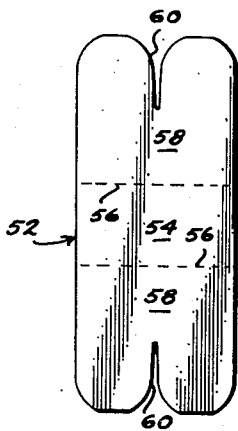


Fig. 9

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2,686,003

BOTTLE CARRIER

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Application September 15, 1950, Serial No. 185,009

2 Claims. (Cl. 229—52)

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This invention relates to bottle carriers, and more particularly to an improved form of paper-board bottle carrier incorporating a unique arrangement of partitions which provides for complete separation of bottles in the carrier to protect them against damage, and by which the carrier is further provided with an exceptionally strong, multi-ply, carrying handle.

The bottle carrier of the present invention is characterized in particular by a medial partition which is formed of component panel elements in a manner such that a four-ply carrying handle results as the carrier is erected from collapsed position, and such that this carrying handle provides the means by which the carrier is secured in erect position. This medial partition arrangement and other features of the bottle carrier of the present invention are described in detail below in connection with the accompanying drawings, in which:

Fig. 1 is a perspective view of a bottle carrier constructed in accordance with the present invention;

Fig. 2 is a plan view of the bottle carrier shown in Fig. 1;

Figs. 3 and 4 are vertical sections taken, respectively, on the lines 3—3 and 4—4 in Fig. 2;

Fig. 5 is a plan view of a blank for forming the carrier illustrated in Figs. 1 to 4, inclusive;

Figs. 6, 7, and 8 are corresponding plan views illustrating progressively the manner in which the blank shown in Fig. 5 is folded and glued for erection to form the carrier shown in Figs. 1 to 4, inclusive; and

Fig. 9 is a plan view of a blank for a transverse partition element such as is employed with the bottle carrier of the present invention.

In the embodiment shown in the drawings, the bottle carrier structure of the present invention comprises a one-piece bottom wall 10 foldably joined at its side edges 12 to opposed side walls 14, which in turn are foldably joined at their side or end edges 16 to opposed pairs of end wall panels 18 and 20 that extend from the side walls 14 to meet medially of the carrier structure.

A multi-ply medial partition, as indicated generally by the reference number 22, is secured to these extending pairs of end wall panels 18 and 20 to partition the carrier medially and to provide a central handle portion from which the carrier may be suspended for carrying. This partition 22 is formed of two medial partition panels that are secured respectively between the extending edges, as at 28 and 30 of the end wall panels 18 and 20 joined to each side wall 14. As

shown in the drawings, these medial partition panels 24 and 26 may be secured in this manner to the end walls 18 and 20 by foldably joining them at the extending edges of one pair of the end wall panels (such as 20), and forming them with glue flaps as at 32 and 34 for securing at the extending edges of the respective end wall panels of the other pair (such as 18).

One of the medial partition panels (such as 24) is formed to extend downwardly all the way to the bottom wall 10 so as to form medial partition means that will separate bottles in the carrier completely in this direction. The other medial partition panel 26 is formed with a bottom edge as at 36 which terminates sufficiently short of the bottom wall 10 to provide for foldably joining at this bottom edge 36 a first auxiliary panel 38 that is formed in substantially coextensive proportions with respect to the medial partition panel 26. A second auxiliary panel 40 of comparable proportions is in turn foldably joined at the edge 42 of the first auxiliary panel 38 that is remote from the partition panel 26.

Both of the medial partition panels 24 and 26, as well as the first auxiliary panel 38, are formed with registering hand hold apertures as at 44, 46, and 48, while the second auxiliary partition panel 40 is slit to form the outline of a corresponding hand hold aperture with a flap member as at 50 remaining hinged therein. By this arrangement, the auxiliary panels 38 and 40 may be folded over the medial partition panels 24 and 26 in erecting the carrier, and the flap member 50 may be extended through the hand hold apertures 44, 46, and 48, to secure the panel elements of the medial partition 22 in this folded relation and thereby maintain the carrier erect. It should be noted that in this manner a 4-ply handle portion results for supporting the carrier, and further that the folded disposition of the auxiliary panels 38 and 40 exposes their smooth outer surfaces (i. e., the surface corresponding to the outer surfaces of the wall elements of the carrier), so that a printed design may be formed on a blank for the carrier to appear in a related pattern with respect to the rest of the carrier structure.

In order to compartment the bottle carrier structure of the present invention to accommodate a series of bottles on each side of the medial partition 22, a transverse partition element 52 is employed. This transverse partition element comprises a central panel 54 of bottle width which is adapted to rest on the bottom wall 10, and which is foldably joined at its side edges 56

to transverse partition panels 58 arranged for upstanding disposition with respect to the central panel 52. The top edges of these transverse partition panels 58 are formed with downwardly extending notches as at 60, and the handle elements forming the medial partition 22 are in turn notched at their bottom edges as at 62 and 64 to provide upwardly extending notches for interlocking with the notches 60 in the transverse partition panels 58 and thereby providing means for securing the transverse partition element 52 in place in the carrier when it is erected. As shown in the drawings (compare Figs. 4 and 9), the downwardly extending notches 60 of the transverse partition panels 58 are flared adjacent their open end with a rounded form, which makes it possible to manipulate the medial partition panel 26 having the shorter bottom edge 36 easily in and out of interlocking engagement with the transverse panel notches 60 after the transverse panels 58 have first been engaged with the other medial partition panel 24, and which thereby facilitates the erection and collapse of the carrier. This disposition of the transverse partition element 52 further serves to reinforce the bottom wall 10 at its central portion and also provides added protection for the bottoms of the bottles disposed in the central carrier compartments as well as providing complete transverse separation from bottles in the end compartments on each side. It should further be noted that by employing a separate transverse partition element 52 of this sort, paperboard of increased thickness may feasibly be provided for separating the bottles while allowing the remainder of the carrier structure to be formed with paperboard of a usual thickness.

To stabilize and strengthen the carrier structure further, web panels 66 may be employed as disclosed in copending application Serial No. 185,008, filed September 15, 1950. These web panels 66 are foldably joined at each end edge 68 of the bottom wall 10 and at the bottom edges 70 and 72 of the respective pairs of end wall panels 18 and 20 which form the adjacent end wall. The web panels 66 are further formed with fold lines 74 extending diagonally from the adjacent corners of the bottom wall 10 and the respective end wall panels 18 and 20 so that they are adapted for doubling in overlying relation with respect to the bottom wall 10 upon erection of the carrier, the web panels 66 being proportioned so that their doubled width does not exceed the width of the end compartments of the carrier (compare Fig. 2, for example). This overlying disposition of the web panels 66 when the carrier is erected results in reinforcing substantially the bottom wall 10 and providing added protection for bottles disposed in the end carrier compartments, just as the transverse partition element 52 provides such protection in the central compartments as already mentioned above. In addition, the web panels 66 also serve, upon doubling when the carrier is erected, to dispose the pairs of end wall panels 18 and 20 in fixed alignment with the end edges 68 of the bottom wall 10 so that the carrier is effectively stabilized in erect position.

The form of blank used in accordance with the present invention for constructing a carrier such as is illustrated in Figs. 1 to 4 of the drawings is shown in Fig. 5. In constructing the carrier from this blank, the first and second auxiliary panels 38 and 40 are first folded upwardly,

as seen in Fig. 6, over the medial partition panel 26 about the fold line 36. Next, the medial partition panels 24 and 26 are both folded over to the left about the adjacent edges 30 of the end wall panels 20 to which they are joined, as seen in Fig. 6, and a coating of adhesive is applied to the exposed faces of the glue flaps 32 and 34 as indicated by stippling in Fig. 7; and then the other pairs of end wall panels 18 is folded over to the right and thereby secured by the adhesive application to the glue flaps 32 and 34, as shown in Fig. 8, to form the carrier structure in collapsed position for association upon erection with a transverse partition element 52 having a blank form such as is shown in Fig. 9.

I claim:

1. A paperboard carrier for bottles and the like, said carrier comprising a one-piece bottom wall, opposed side walls foldably joined to said bottom wall, opposed pairs of end wall panels foldably joined at the ends of said side walls and extending therefrom in a width corresponding substantially to half the width of said bottom wall so that the end wall panels of each pair meet medially of said carrier when erected, a medial partition panel foldably secured at the extending edge of each end wall panel of one of said pairs and foldably joined to the extending edge of the respective end wall panel of the other pair, whereby said medial partition panels are disposed in back-to-back relation upon erection of said carrier, one of said partition panels having a bottom edge extending downwardly to said bottom wall and the other of said partition panels having a bottom edge terminating short of said bottom wall, a first auxiliary panel foldably joined at the bottom edge of one of said medial partition panels and substantially co-extensive therewith, a second auxiliary panel of comparable proportions foldably joined at the top edge of said first auxiliary panel, both of said partition panels and said first auxiliary panel being formed with registering hand hold apertures, and said second auxiliary panel being slit to form the outline of a corresponding hand hold aperture with a flap member remaining hinged therein, whereby said auxiliary panels may be folded over both of said partition panels and secured in this folded position by extending said flap member through said hand hold apertures for maintaining said carrier erect, and a transverse partition element for said carrier comprising a central panel of bottle compartment width adapted to rest on said bottom wall, and transverse partition panels foldably joined at each side edge of said central panel for disposition in upstanding relation with respect to said central panel, said transverse partition panels being formed with downwardly extending notches from their top edges, and the panel elements of said medial partition being formed with upwardly extending notches from the bottom edges thereof for interlocking with said transverse partition panel notches and thereby providing for securing said transverse partition element in place upon erection of said carrier, the downwardly extending notches in said transverse partition panels being flared adjacent the top edges of said panels with a rounded form for allowing said medial partition panel having a bottom edge terminating short of said bottom wall to be manipulated easily in and out of interlocked engagement with said transverse partition panel notches after said transverse partition panels have first been en-

gaged with the other of said medial partition panels.

2. A paperboard carrier as defined in claim 1 and further characterized in that a web panel is foldably joined at each end edge of said bottom wall and at the bottom edges of the adjacent pair of end wall panels, said web panels being formed with fold lines extending diagonally from the adjacent corners of said bottom wall and end wall panels for doubling in overlying relation to said bottom wall upon erection of said carrier and thereby disposing said end wall panels in fixed alignment with the end edges of said bottom wall, the doubled width of said web panels overlying said bottom wall from each end edge thereof in an extent exceeding half the width of the end bottle compartments and there-

by serving to reinforce the bottom wall at said end compartments comparably to the reinforcement afforded by the central panel of said transverse partition element for the central compartments formed thereby.

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